Rhodora

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JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 19. October, 1917. No. 226.

A NEW ALPINE WILLOW FROM THE WHITE MOUNTAINS.

M. L. Fernald.

One of the areas in the White Mountains of New Hampshire unknown to most botanists is the wet southwest gully of King's Ravine. The dripping rocks of the gully and its high precipitous cliffs have proved forbidding to the path-builder, and only the most expert climbers have found their way into it. Among the latter, naturally, is the indefatigable explorer of Coös County, Professor Arthur Stanley Pease, who in July, 1909, discovered[1] in this gully of King's Ravine the arctic-alpine *Taraxacum ceratophorum* (Ledeb.) DC. The *Taraxacum*, in immature condition, was collected late in July, and in the hope of securing mature material Professor Pease and the writer descended King's Ravine through the southwest gully on August 8, 1917. The snow had only just disappeared from many of the banks and the *Taraxacum* was not found, but of much greater interest was a trailing willow which carpeted in great profusion the wet mossy banks at altitudes above 1310 m. (4300 feet). The shrub was first noticed when we were at an altitude of about 1375 m. (4500 feet) but it may occur higher up the gully. In the dark lustrous green, prominently reticulated veins and closely crenate margins of the leaves the shrub at first suggested *Salix herbacea* L.; but the leaves were oblong to narrowly obovate and narrowed at base, not rounded to reniform and cordate at base as in *S. herbacea*, and the coarse woody freely forking superficial branches (3–6 mm. thick) trailed often to a length of 5 dm. from the central trunk. The shrub was, then, obviously not a phase of *S. herbacea;* and when, after reaching this decision, we found it abundantly fruiting, the departure from *S. herbacea* became more pronounced, for the new shrub has densely many-flowered aments, in fruit 1.5–3 cm. long, resembling those of *S. Uva-ursi* Pursh.

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[1] Pease, Rhodora, xix. 111 (1917).

The latter species, *S. Uva-ursi,* is the only other trailing willow of the New England mountains, but, unlike *S. herbacea* and the coarser shrub of King's Ravine which occur on wet mossy knolls and banks, *S. Uva-ursi* characterizes the most exposed and arid ledges and gravels. The new shrub differs from the common xerophytic *S. Uva-ursi* in many characters. The branches and branchlets of *S. Uva-ursi* are stiff and straightish, the branchlets subascending; those of the King's Ravine shrub very flexuous and closely appressed to the moss and humus. In *S. Uva-ursi* the usually elliptical leaves are acute or acutish, whitened beneath, subentire or at most remotely serrate, and the surfaces are scarcely if at all papillose; but in the King's Ravine shrub the oblong or narrowly obovate leaves are obtuse or rounded at summit, bright green and lustrous beneath as well as above, closely crenate-dentate, and (under a lens) distinctly papillose above and often beneath. In its ament-characters, so far as shown by the fruiting material, the King's Ravine shrub is very similar to *S. Uva-ursi,* but has longer capsules than are usual in that species.

Altogether the King's Ravine shrub differs so pronouncedly from both of its allies, *S. herbacea* and *S. Uva-ursi,* that it seems worthy specific separation. It is possible that it long ago originated by the hybridization of these two species, but at present it is so uniform and characteristic over a large area of the Ravine and so definitely fertile that its present status is not open to question. The shrub seems to be quite distinct from any described arctic-alpine species and its only previous collections seem to have been by Dr. Pease in 1909 and again in 1913 in King's Ravine. It is, therefore, highly appropriate that it bear the name of the keen and untiring explorer of the White Mountain flora, Arthur Stanley Pease, who shared in its discovery; and to those who are familiar with Dr. Pease's well-earned reputation as an alpine explorer there is a singular propriety in dedicating to him a plant which, like him, finds itself at home on the almost inaccessible wet cliffs of a mountain ravine.

The new species is proposed as

SALIX **Peasei**, n. sp., frutex depressus, ramis decumbentibus vel repentibus flexuosis ligneis 1.5–5 dm. longis 3–6 mm. diametro atrocastaneis lucidis, ramulis prostratis vel assurgentibus valde flexuosis pilosis glabratis; foliis membranaceis glabris reticulatis plerumque perviridibus lucidisque supra valde papillosis ellipticis vel anguste obovatis obtusis vel apice rotundatis crenato-dentatis 0.8–2.3 cm. longis 0.4–1.9 cm. latis, petiolo 2–5 mm. longo; amentis fructiferis terminalibus pedunculatis 1.5–3 cm. longis 0.7–1 cm. diametro, pedunculo 4–9 mm. longo albido-piloso; squamis ellipticis vel anguste obovatis obtusiusculis fuscis 2 mm. longis albido-pilosis, pilis 1 mm. longis; capsulis conico-subulatis glabris 5–6 mm. longis purpurascentibus, stylo tenui 0.6–0.8 mm. longo, stigmatibus valde bifidis adscendentibus, pedicello 0.5 mm. longo nectarium subaequante.

Depressed shrub; the branches decumbent or repent, flexuous, ligneous, 1.5–5 dm. long, 3–6 mm. in diameter, blackish-chestnut, lustrous; the branchlets prostrate or assurgent, very flexuous, pilose and glabrate: leaves membranaceous, glabrous, reticulated, very green and lustrous on both surfaces, obviously papillose above, elliptical or narrowly obovate, obtuse or rounded at summit, crenate-dentate, 0.8–2.3 cm. long, 0.4–1.9 cm. broad; petiole 2–5 mm. long: fruiting aments terminal, peduncled, 1.5–3 cm. long, 0.7–1 cm. in diameter; peduncle 4–9 mm. long, white-pilose: scales elliptical or narrowly obovate, obtusish, fuscous, 2 mm. long, white-pilose, the hairs 1 mm. long: capsules conic-subulate, glabrous, 5–6 mm. long, purplish; style slender, 0.6–0.8 mm. long; stigmas deeply 2-cleft, ascending; pedicel 0.5 mm. long, about equaling the nectary.— NEW HAMPSHIRE: trailing on wet mossy banks at 1310–1375 m. (4300–4500 ft.), southwest gully of King's Ravine, Low & Burbank Grant, July 27, 1909, *Pease*, no. 12,091, July 26, 1913, *Pease*, no. 14,433, August 8, 1917, *Fernald & Pease*, no. 16,847 (TYPE in Gray Herb.).

GRAY HERBARIUM.

ADDITIONS TO THE FLORA OF CONNECTICUT.

(*Continued from page 130.*)

Ranunculus allegheniensis Britton. Occasional in northwestern Connecticut.

* Thalictrum dasycarpum Fisch. & Lall. Thickets: Groton (Weatherby), New London (Graves), Franklin (R. W. Woodward, Rhodora, xv. 95).

* Hepatica americana (DC.) Ker, forma candida Fernald. Rhodora, xix. 46 (1917). Occasional with the typical form.

H. acutiloba DC. Simsbury, 1837 (specimen in Shurtleff herb. at Wesleyan University; no collector given). In the Catalogue reported only from western Connecticut.

† Clematis florida Thunb. Woodbridge (Chas. F. Hull). The collector states that this species has been growing beside a brook for several years. Frequently cultivated. Native of Japan.

C. verticillaris DC. Killingly (C. H. Knowlton, Rhodora, xiii. 31). In the Catalogue not reported from Windham Co.

Coptis trifolia (L.) Salisb. Stamford (W. H. Hoyt). In the Catalogue not reported near the coast west of New Haven.

* Actaea rubra (Ait.) Willd., forma neglecta (Gillman) Robinson. Rich, rocky woods on the north slope of Canaan Mt., North Canaan (Harger & Weatherby). Also reported from Mt. Totoket, North Branford (O. Harger in "Berzelius" Catalogue).

At the station in North Canaan a single plant of the form was found growing with *A. rubra* and *A. alba.* The berries of *A. rubra* and forma *neglecta* were mature. Those of *A. alba* were half-grown. Growing near was another plant with the slender pedicels of *A. rubra* but with the half-grown fruit of *A. alba* and with leaves more nearly like the latter. The different combinations of characters suggest that one or both of these forms may be of hybrid origin.— E. B. Harger.

Sassafras variifolium (Salisb.) Ktze. Rare in dry woods, Oxford (Harger). Frequent near the coast.

* S. variifolium (Salisb.) Ktze., var. albidum (Nutt.) Fernald. Rhodora, xv. 16 (1913). Stonington (Bissell, Harger & Weatherby). Frequent at Oxford (Harger). This variety is distinguished by its glabrous and glaucous leaves and twigs. The ranges of this and of the preceding are not definitely known.

DRABA CAROLINIANA Walt. Middletown (Joseph Barratt), Canaan (Bissell & Weatherby), Salisbury (Mrs. C. S. Phelps). Extensions of range northward.

ALYSSUM ALYSSOIDES L. Middlebury (Harger), Waterbury (A. E. Blewitt).

LEPIDIUM DRABA L. One plant in a field, East Granby (E. J. Winslow & A. F. Hill). Abundant by roadsides, Norwalk (Eames).

† L. PERFOLIATUM L. Old cultivated field, Barkhamsted (A. E. Blewitt). Fugitive from Europe.

† CORONOPUS DIDYMUS (L.) Sm. Well established locally about the harbor at Westport (Eames). Adventive from Europe.

CAMELINA MICROCARPA Andrz. Adventive at Middlebury as a persistent weed on borders of cultivated fields and along paths (Harger). In the Catalogue reported only as fugitive.

NESLIA PANICULATA (L.) Desv. Waterbury (A. E. Blewitt).

CONRINGIA ORIENTALIS (L.) Dumort. Waterbury and Barkhamsted (A. E. Blewitt). Apparently increasing in frequency about the more settled districts but nowhere well established (Eames).

SISYMBRIUM OFFICINALE (L.) Scop. Several additional stations in southwestern Connecticut.

† S. INCISUM Engelm., var. HARTWEGIANUM (Fourn.) Wats. Waste ground where street sweepings had been dumped, Waterbury (A. E. Blewitt). Fugitive from the northwestern United States.

S. SOPHIA L. New Haven (J. P. Brace, RHODORA, xvi. 86).

DENTARIA MAXIMA Nutt. Hartland (Bissell & Weatherby).

ARABIS HIRSUTA (L.) Scop. Guilford (G. H. Bartlett), New Haven (J. A. Allen; specimen in Herb. Conn. Agr. Exp. Sta.), Ridgefield, on limestone (Eames & C. C. Godfrey). Not previously reported near the coast west of Old Lyme or in Fairfield Co.

* A. VIRIDIS Harger. RHODORA xiii. 36 (1911). Dry ledges, more often on trap: Scotland (Weatherby), East Granby (Harger), Hamden (A. E. Blewitt), Woodbury (Eames & C. C. Godfrey), Southbury (type station, Harger).

This species, formerly included under *A. laevigata*, may be distinguished from that species by its green color, lyrate-pinnatifid basal and lower stem-leaves which are not clasping, and by its much later flowering season, about May 20th to July 1st.

PODOSTEMUM CERATOPHYLLUM Michx. Plymouth (H. J. Bassett, 1861). In the Catalogue not reported from Litchfield Co.

Tiarella cordifolia L. Bank of Saugatuck River in Weston (W. J. Comstock). An extension of range southwestward.

Mitella nuda L. Norfolk and Goshen (Eames & C. C. Godfrey).

Philadelphus coronarius L. Near an old cellar, Beacon Falls (A. E. Blewitt).

P. inodorus L. With the last, Beacon Falls (A. E. Blewitt).

† Hydrangea paniculata Sieb. One thriving plant near the railway at Stamford (W. H. Hoyt). Fugitive from the southern states.

† H. quercifolia Bartr. A large and thrifty colony on a hillside in Norwalk, where probably spread from cultivation many years ago (Eames). Native of the Gulf states and not usually considered hardy anywhere in New England.

Ribes nigrum L. Huntington and Easton (Eames).

* R. triste Pall., var. albinervium (Michx.) Fernald. Rare. In a cold swamp, Cornwall (Weatherby).

Physocarpus opulifolius (L.) Maxim. Escaped from cultivation at Bridgeport and Norwalk (Eames).

Spiraea prunifolia Sieb. & Zucc. This usually occurs in the double-flowered form common in cultivation, but the single-flowered type is well established along a roadside in Fairfield (Eames).

Cydonia japonica (Thunb.) Pers. Roadside, Seymour (Harger).

* Amelanchier stolonifera Wiegand. Rhodora, xiv. 144 (1912). Rare. Dry sandy or rocky ground: Waterford and East Lyme (Graves), Old Lyme (Bissell & Weatherby), Tolland and East Hartford (Weatherby), Suffield (Harger), Southington (Bissell, Rhodora, xiv. 146). In the Catalogue included under *A. oblongifolia.*

A. canadensis (L.) Medic. *A. canadensis* (L.) Medic., var. *tomentula* Sarg. Extends across the western part of the state. Rare near the coast, becoming occasional northward.

* A. sanguinea (Pursh) DC. *A. spicata* Gray's Man. Ed. 7. *A. rotundifolia* Roem. Rare. Calcareous ledges, on the bank of the Housatonic River, Salisbury (A. E. Blewitt & Harger).

Crataegus foetida Ashe. Occasional in New London Co. (Graves), East Windsor (Bissell), Southington (Andrews).

* C. rotundifolia Moench., var. Faxoni (Sarg.) Eggleston. Occasional in New London Co. (Graves), Killingly (Bissell).

* C. roanensis Ashe. Rare. Old pasture, Hartford (Bissell).

C. macrosperma Ashe. Frequent and widely distributed.

* C. MACROSPERMA Ashe, var. PASTORUM (Sarg.) Eggleston. Litchfield (Bissell).

C. MACROSPERMA Ashe, var. MATURA (Sarg.) Eggleston. Widely distributed.

* C. MACROSPERMA Ashe, var. VIRIDIMONTANA (Sarg.) Eggleston. *C. viridimontana* Sarg. Litchfield and Salisbury (Bissell).

* C. NAPAEA Sarg. should stand as a good species.

* C. PRUINOSA (Wendl.) K. Koch, var. INCISA (Sarg.) Eggleston. Included in the Catalogue among the forms of uncertain status as *C. incisa* Sarg.

* C. DELTOIDES Ashe. East Windsor (Bissell), Washington (Miss Knowles).

C. JESUPI Sarg. should be omitted from our flora.

C. HOLMESIANA Ashe. Hartford (Bissell).

C. PRINGLEI Sarg. should be omitted from our flora (as to the typical form only).

C. POLITA Sarg. Newington and Litchfield (Bissell).

* C. POLITA Sarg., var. TATNALLIANA (Sarg.) Eggleston. Pawcatuck Point, Stonington (Bissell, Harger and Weatherby).

* C. BRAINERDII Sarg., var. EGGLESTONII (Sarg.) Robinson. Occurs at Stratford and Litchfield (Bissell).

* C. MACRACANTHA Lodd., var. NEOFLUVIATILIS (Ashe) Eggleston. Occurs at Litchfield and Salisbury (Bissell).

Notes on *Crataegus* are for the most part from specimens determined by W. W. Eggleston.

† FRAGARIA GRANDIFLORA Ehrh. Waste ground, Bridgeport (Eames). Fugitive from Europe.

POTENTILLA INTERMEDIA L. Brookfield (A. E. Blewitt).

P. RECTA L. More frequent than stated in the Catalogue and locally abundant.

P. TRIDENTATA Ait. Colebrook (G. E. Nichols).

† FILIPENDULA ULMARIA (L.) Maxim., var. DENUDATA (Hayne) Maxim. Established along a roadside, Salisbury (Eames & C. C. Godfrey). Native of Europe.

KERRIA JAPONICA (Thunb.) DC. East Lyme (Graves), Westport (Eames).

* ? RUBUS NEGLECTUS Peck. Ledyard (Mrs. C. B. Graves), Waterbury and Barkhamsted (A. E. Blewitt). In the Catalogue reported only from Oxford.

R. phoenicolasius Maxim. Plainville (Andrews). Several additional stations have been observed in the southwestern part of the state, where, no doubt, it has been partly distributed by birds.

† R. rosaefolius Smith. Rare. At a time said to have been more than twenty years ago, introduced into a garden in Huntington, where it became a nuisance. Efforts have been made to eradicate it, but a small colony persists in a rocky waste on the premises. The flowers are single and it is said to form some fruit. (Eames and C. C. Godfrey). Native of the Orient.

* R. canadensis L. Most of the material referred in the Catalogue to *R. Randii* belongs under this species, which occurs through northern Connecticut as far east as Union (Graves) and as far south as Danbury (A. E. Blewitt). One specimen collected at Salisbury by Bissell agrees well with authentic material of *R. Randii;* but *R. Randii* is probably only a weak form of *R. canadensis.*

Agrimonia parviflora Ait. Stamford (W. H. Hoyt).

A. rostellata Wallr. Kent (Eames).

Rosa spinosissima L. Prospect (A. E. Blewitt), Brookfield (Eames).

R. canina L. Portland (Mrs. F. W. Starmer, Rhodora, xiii. 31), Fairfield (Eames), Salisbury (Mrs. C. S. Phelps, Rhodora, l. c.), Stamford (W. H. Hoyt).

R. nitida Willd. Plainfield (Bissell, Rhodora, xiii. 31).

* Prunus virginiana L., var. leucocarpa Wats. Rare. Fence-rows: Southington (Andrews), Seymour (Harger).

P. insititia L. Redding (M. L. Fernald, Eames & C. C. Godfrey).

P. nigra Ait. River-bank and fields: Salisbury (A. E. Blewitt & Harger), Sharon (Weatherby). Apparently native at the former station.

† P. americana Marsh., var. mollis Torr. & Gray. Roadsides and fence-rows: Thompson (Weatherby), Lyme (Harger), East Granby (Bissell, H. S. Clark & Weatherby, Rhodora, xiii. 31), Oxford (Harger), Woodbury (Eames & C. C. Godfrey). Introduced from the central United States. The Oxford station known to be an introduction from Iowa.

† Gymnocladus dioica (L.) Koch. Kentucky Coffee Tree. Hillside at Norwalk where no parent tree exists at present (Eames). Introduced from the central United States.

† Trifolium dubium Sibth. Rare. Three stations, one abundant,

at Fairfield (Eames & C. C. Godfrey), Middletown (W. R. Dudley; specimen in Herb. Yale University). Adventive from Europe.

† COLUTEA ARBORESCENS L. Rare. A small colony on a roadside bank, Milford (Eames). Introduced from Europe.

† ANTHYLLIS VULNERARIA L. Kidney Vetch. In ground where potting soil from greenhouses had been spread, Cromwell (Mrs. S. V. Hubbard, RHODORA, xiii. 240). Fugitive from Europe.

† ASTRAGALUS CANADENSIS L. In the herbarium of Wesleyan University is a specimen of this species labelled: "Rock Falls, near Middletown, Ct., June 10, 1879. Hewitt, '79, legit."

LESPEDEZA SIMULATA Mackenzie & Bush. Waterbury (A. E. Blewitt).

* L. HIRTA (L.) Hornem., var. OBLONGIFOLIA Britton. Glastonbury (Mrs. F. W. Starmer, RHODORA, xiii. 31).

* L. CAPITATA Michx., var. STENOPHYLLA Bissell & Fernald. RHODORA, xiv. 92 (1912). Sandy soil: Groton (Graves), Glastonbury (Bissell).

† ARACHIS HYPOGAEA L. Peanut. Waste ground, Waterbury (A. E. Blewitt). Fugitive from tropical regions.

VICIA TETRASPERMA (L.) Moench. Thomaston (A. E. Blewitt), Salisbury (Mrs. C. S. Phelps), Oxford (Harger).

VICIA HIRSUTA (L.) S. F. Gray. Waterbury (A. E. Blewitt). Associated with *V. tetrasperma* at Fairfield (Eames) and Greenwich (W. H. Hoyt).

V. VILLOSA Roth. This vetch, now much used as a cover crop, is escaping quite freely to roadsides and waste places and sometimes persists two to three years in fields where it has been sown.

LATHYRUS PALUSTRIS L., var. LINEARIFOLIUS Seringe. Waterford (Graves), Bridgeport (Eames).

* L. PALUSTRIS L., var. PILOSUS (Cham.) Ledeb. Groton and Old Lyme (Graves), Old Saybrook (Harger). Referred to var. *linearifolius* in the Catalogue. See RHODORA, xiii. 51.

LENS ESCULENTA Moench. Waterbury (A. E. Blewitt).

AMPHICARPA PITCHERI Torr. & Gray. Chester (Harger). In the Catalogue not reported east of Southington.

LINUM MEDIUM (Planch.) Britton. Granby (B. B. Bristol).

* L. FLORIDANUM (Planch.) Trel., var. INTERCURSUM (Bicknell) Weatherby. RHODORA, xviii. 224 (1916). Pasture in rather moist sandy soil, East Hartford (Weatherby).

* GERANIUM BICKNELLII Britton. Rare. Dry soil: Meriden (A. E. Blewitt), Kent (H. Mosher).

G. PUSILLUM Burm. f. New London (Mrs. A. V. DeWitt).

POLYGALA NUTTALLII Torr. & Gray. Voluntown (Harger).

EUPHORBIA POLYGONIFOLIA L. Occurs inland as a weed in waste ground at Hartford (H. S. Clark).

E. ESULA L. Roadsides, Greenwich (Eames & W. H. Hoyt).

* ILEX MONTICOLA Gray, var. MOLLIS (Gray) Britton. Woods, Torrington (W. E. Campbell, RHODORA, xiv. 205). This plant should be looked for in Salisbury, as it has been found in Mt. Washington, Mass., within a mile of the state line.

I. VERTICILLATA (L.) Gray, var. TENUIFOLIA (Torr.) Wats. Occasional throughout western Connecticut.

I. LAEVIGATA (Pursh) Gray. Stafford (Weatherby). Not previously reported from Tolland Co.

EVONYMUS ALATUS (Thunb.) Rupr. & Maxim. Occasional over much of the state.

E. ATROPURPUREUS Jacq. Waterbury (A. E. Blewitt).

ACER PLATANOIDES L. Freely escaping at Seymour (Harger).

AESCULUS HIPPOCASTANUM L. Bank of Shetucket River, Norwich (Graves).

RHAMNUS ALNIFOLIA L'Hér. Durham (Weatherby), Guilford and North Branford (W. R. Dudley; specimens in Herb. Yale University), Brookfield and Southbury (Harger). In the Catalogue not reported south of Cornwall.

† R. FRANGULA L. Beaver Meadows, New Haven (G. E. Nichols). Introduced from Europe.

PARTHENOCISSUS QUINQUEFOLIA (L.) Planch., var. HIRSUTA (Donn) Planch. *Psedera quinquefolia* (L.) Greene, var. *hirsuta* (Donn) Rehder. Haddam and Danbury (Weatherby), Waterbury (A. E. Blewitt), Oxford (Harger), and frequent in dry, rocky woods on the trap ridges of central Connecticut. In the Catalogue reported only from Litchfield Co.

VITIS BICOLOR LeConte. Oxford (Harger) and rare or occasional throughout southwestern Connecticut.

† ANODA TRIANGULARIS DC. Yard where grain-screenings had been scattered, Southington (H. Whitney). Fugitive from the southwestern United States.

HYPERICUM MAJUS (Gray) Britton. Killingly (Weatherby), Barkhamsted (A. E. Blewitt), Hartland (Bissell & Weatherby). Not previously reported from Windham Co. or northern Connecticut west of the Connecticut River.

* HUDSONIA ERICOIDES L. Sand-banks and sandy woods, Voluntown (A. W. Evans & G. E. Nichols).

LECHEA MARITIMA Leggett, var. INTERIOR Robinson. Enfield and Suffield (Bissell & R. W. Woodward, RHODORA, xiii. 31), Plainfield (Mrs. Henry Dorrance). Northward extensions of range.

L. LEGGETTII Britton & Hollick. Branford and Oxford (Harger). In the Catalogue reported only from New London Co.

* VIOLA EMARGINATA LeConte. Low, sandy woods, Cromwell (Philip Dowell).

* V. SELKIRKII Pursh. Cold, rocky woods, Salisbury (Mrs. C. S. Phelps, RHODORA, xv. 225).

V. PRIMULIFOLIA L. Canaan (Miss Julia F. White), Salisbury (Mrs. C. S. Phelps). Not previously reported from Litchfield Co.

V. ROSTRATA Pursh. East Windsor (J. W. Robbins, about 1825; specimen in Herb. Yale University).

OPUNTIA VULGARIS Mill. On ledges of Hartland schist, Farmington (Luman Preston, about 1860, E. H. Munger). Not previously reported so far inland.

† DAPHNE MEZEREUM L. Dry hillside woods: Norfolk (reported in Crissey's History of Norfolk, p. 498; Miss M. C. Seymour, RHODORA, xvi. 96), Salisbury (Mrs. C. S. Phelps, RHODORA, l. c.). Adventive from Europe.

LYTHRUM SALICARIA L. Waterford (Graves), Windham (Miss Grace P. Bates). In the Catalogue not reported from New London or Windham Counties.

EPILOBIUM MOLLE Torr. Guilford (W. R. Dudley; specimen in Herb. Yale University).

* OENOTHERA MURICATA L. Dry soil, often on railway fills or sea-beaches: Orange and East Haven (G. E. Nichols), North Branford and Seymour (Harger). Frequent in southwestern Connecticut (Eames).

GAURA BIENNIS L. Windsor (Prof. E. P. St. John). Extension of range northward.

† CLARKIA PULCHELLA Pursh. In newly seeded grass-land: Somers (Mrs. Myrtie D. Davis), Windsor (C. R. Hathaway); Granby (I. Holcomb), New Milford (E. H. Austin). Fugitive from the northwestern United States.

* Myriophyllum alterniflorum DC. Shallow water of Tyler's Pond, Goshen. (Bissell & Weatherby).

M. spicatum L. In slow water of the Housatonic River at Oxford and Huntington (Harger). Only sterile material found but apparently well distinguished by the foliar characters.

(*To be continued.*)

E. B. Harger,
C. B. Graves,
E. H. Eames,
C. H. Bissell,
L. Andrews,
C. A. Weatherby.

TWO NEW POLYGONUMS FROM NEW ENGLAND.

S. F. Blake.

As the publication of a revision of the North American members of the *Polygonum aviculare* group on which the writer has been engaged for some time has been unavoidably postponed, it has seemed advisable to publish at this date descriptions of the two following new species from New England. Of these one is most nearly related to *P. erectum* L., and, as seems to be the case with that species, has not yet been found in a clearly indigenous condition. The other, somewhat related to *P. Fowleri* Robinson and *P. aviculare* L., but very distinct from either, is known from a number of collections along the coast of Maine and New Brunswick.

Polygonum **achoreum**, sp. nov. Annuum ramosum adscendens coeruleo-viride caulibus (1)1.5–3.5 dm. longis. Caulis validus striatus supra compresso-angulatus albido-viridis glaber, internodiis caulinis 1–1.5 (rare 2) cm. longis, eis ramealibus 4–8 mm. longis. Folia creberrima elliptica apice latissime rotundata basi in petiolum brevissimum (0.6–1.5 mm. longum) cuneate angustata coeruleo-viridia firma inconspicue venosa (venis ca. 5-jugis) 7.5–22.5 mm. longa 4–10 mm. lata internodia superantia, ea ramulina minora ceterum similia valde conferta. Ocreae nitenti-scariosae albidae mox laceratae (laciniis ca. 6–8) scarioso(vix fibrilloso)-persistentes conspicuae

4–9 mm. longae, basi brunneae tenuissime ca. 6–8-nerviae. Flores 1–3 in axillis fere omnibus ramealibus, pedicellis in ocreis inclusis. Calyx frugifer 3.4–4 mm. longus 2–2.5 mm. latus ovoideo-subfusiformis saepissime apice contracto subrostratus subcoeruleo-viridis membranaceo-coriaceus ad medium 5-lobatus; sepala 5 oblonga conferta achenium saepissime omnino occultans, tria exteriora anguste vel omnino non pallido-marginata dorso valde carinata non venosa apice valde cucullata, duo interiora multo breviora sublate albo-marginata evenia a sepalis exterioribus saepissime omnino occultata. Achenia inclusa rarissime paullo exserta olivacea obscure puncticulosa omnino non nitentia valde inaequaliter trigona 2.6 mm. longa 1.8 mm. lata. Stamina 3–5. Stylus brevis ad medium divisus.

Branched ascending annual, bluish-green, the stems (1) 1.5–3.5 dm. long. Stem stout, striate, compressed-angled above, whitish-green, glabrous; stem-internodes 1–1.5 (rarely 2) cm. long, the rameal 4–8 mm. long. Leaves very crowded, elliptic, broadly rounded at apex, cuneately narrowed into the very short (0.6–1.5 mm. long) petiole, firm, bluish-green, inconspicuously veined (veins about 5 pairs), surpassing the internodes, 7.5–22.5 mm. long, 4–10 mm. wide, those of the branches similar to the stem leaves but smaller, densely crowded. Ocreae lucid-scarious, whitish, weakly ca. 6–8-nerved at the brownish base, soon lacerate (lacineae ca. 6–8), scarious-persistent, scarcely at all fibrillose, conspicuous, 4–9 mm. long. Flowers 1–3 in nearly all the branch axils, on included pedicels. Fruiting calyx 3.4–4 mm. long, 2–2.5 mm. wide, ovoid-subfusiform, usually subrostrate by the contracted apex, somewhat bluish-green, membranaceous-coriaceous, divided merely to the middle; sepals 5, narrowly oblong, crowded, usually completely hiding the achene, the three outer with narrow pale margin or none, strongly carinate but not venose on the back, strongly cucullate at apex, the two inner much shorter, rather broadly whitish-margined, but this normally quite hidden by the outer sepals, veinless. Achenes included or very rarely slightly exserted, olivaceous, obscurely puncticulose, not at all shining, very unequally trigonous, 2.6 mm. long, 1.8 mm. wide. Stamens 3–5. Style short, divided to the middle.— *P. erectum* Blake! Rhodora, xv. 164 (1913), not L.— Gaspé County, Quebec, to Minnesota, Missouri, Montana and Saskatchewan, not obviously native anywhere.— Quebec: salt marsh, York, Gaspé Co., 25 Aug. 1904, *Collins, Fernald, and Pease,* (*Pease* 5604 in part); vicinity of Longueuil, Sept. 1917, *Bro. Marie-Victorin* 4262. Vermont: in paths, Queen City Park, South Burlington, 13 Aug. 1911, *Blake* 2766 (type coll.; Gray Herb. hb. N. E. Bot. Club, hb. Blake). Minnesota: St. Anthony Park, Minneapolis, 20 July 1888, *J. H. Schuette;* along path, Bald Eagle, Ramsey Co., 6 July 1910, *Blake* 210 (hb. Blake). Missouri: introduced, Sheffield, 19 July 1906, *Bush* 4060 (distr. as *P. littorale*). North Dakota: streets, Leeds, 26 July 1900, *Lunell* (distr. as *P. erectum*). Montana: roadside weed, common, Great

Northern Railway, Calais, 14 July 1900, *Blankinship;* field, 1370 m., Glacier National Park, Teton Co., 22–28 July 1913, *Hunnewell* 2063 (hb. Hunnewell). SASKATCHEWAN: 1857–58, *Bourgeau* (distr. as *P. aviculare* var. *latifolium*).

Like its nearest relative, *Polygonum erectum* L., the present species, although pretty certainly indigenous in the United States, has apparently never been found in a clearly native condition. It is very distinct from *P. erectum* not only in the form and cutting of its calyx but also in the strongly bluish-green tint of the entire plant, the very round-tipped elliptic leaves, and the conspicuous persistent lucid-scarious not fibrillose crowded ocreae. Much more collecting must be done before the exact range and abundance of the species can be ascertained.

POLYGONUM **allocarpum**, sp. nov. Annuum adscendens vel subadscendens e basi ramosum ramis usque ad 5 dm. longis et ultra, cyaneo- vel luteo- vel rubescenti-viride non glaucum siccitate non obscurans. Caulis validus foliosus striatus internodiis inferioribus 2–4.5 cm. longis quam folia saepissime brevioribus. Folia caulina ovalia vel oblongo-ovalia utroque acuta vel acutiuscula tenuia plana subvenosa (venis lateralibus validioribus 4–7-jugis) 2.5–5.5 cm. longa 1.1–2.1 cm. lata, superiora et ramulina reducta, in petiolis submarginatis 2–5 mm. longis. Ocreae scariosae tenuiter ca. 10-nerviae 7–10 mm. longae mox valde laceratae plus minusve persistentes. Flores 1–3-ni in axillis mediis et superioribus, pedicellis inclusis. Calyx frugifer 3.7–4.5 mm. longus 5-lobatus, lobis oblongis apice rotundatis herbaceis margine petaloideo albido vel rosaceo-tincto conspicuo sed vix lato, costa distincta et (exterioribus) saepe nervis paucis lateralibus praeditis. Achenia exserta vel inclusa obscure olivaceo-castanea rare olivacea trigona saepius plano-convexa lateribus 2 angustioribus plus minusve concavis saepius inaequalibus rarius subaequilateraliter trigona lucida laevia 3.5–4.8 mm. longa 2.5–3 mm. lata. Stamina 5.

Annual, ascending or subascending, branched from the base, the branches up to 5 dm. long or more, bluish-, yellowish- or reddish-green, not darkening in drying, not glaucous. Stem stout, leafy, striate, the lower internodes 2–4.5 cm. long, usually exceeded by the leaves. Leaves oval or oblong-oval, acute or acutish at both ends, thin, flat, subvenose (lateral veins 4–7 pairs), 2.5–5.5 cm. long, 1.1–2.1 cm. wide, on submargined petioles 2–5 mm. long, the upper and the branch-leaves smaller. Ocreae scarious, weakly about 10-nerved, soon strongly lacerate, more or less persistent, 7–10 mm. long. Flowers in clusters of 1–3 in the middle and upper axils, on included pedicels. Fruiting calyx 3.7–4.5 mm. long, 5-lobed, the lobes oblong, rounded at apex, herbaceous with petaloid whitish or rosy-tinged conspicuous but not very broad margin, distinct midrib and (outer sepals) often a few lateral nerves. Achenes exserted or included, dull olivaceous-castaneous or olivaceous, shining, smooth, trigonous, usually plano-convex with two sides narrower and somewhat concave, and usually unequal, sometimes subequally trigonous, 3.5–4.8 mm. long, 2.5–3 mm. wide. Stamens 5.— Sea coast, Maine and adjacent islands of New Brunswick.— New Brunswick: sand, Campobello I., 4 Aug. 1909, *A. B. Klugh* 13. Maine: strand, Pleasant Point, Perry, 16 Aug. 1909, *Fernald;* strand, eastern side of Moose I., Passamaquoddy Bay, 16 Aug. 1909, *Fernald* (type in Gray Herb.); sandy and gravelly strands, Dark Harbor, Islesboro, 14 Aug. 1913, *Woodward, Bissell & Fernald* 9391; sand beach, Great Head, Mt. Desert, 11 Sept. 1905, *C. F. Batchelder;* shore, Southwest Harbor, 2 Sept. 1890, 24 Sept. 1893, *Rand;* Fernalds Point, Mt. Desert, 16 Aug. 1909, *Rand;* shore, Norwoods Cove, 18 Sept. 1892, *Fernald;* shingle, Little Cranberry I., 24 July 1899, *Williams;* beaches, Great Cranberry I., 5 Sept. 1891, 29 Aug. 1892, *Rand;* Swans Island, Aug. 1911, *Furbish;* Damariscotta River, Boothbay, 10 Aug. 1900, *Morss;* Cape Newagen, Southport, 7 Aug. 1894, *Fernald.*

Polygonum allocarpum may easily be recognized by its large leaves, lack of glaucosity, and large shiny achenes. Its nearest relative is perhaps one of the larger forms of the *P. aviculare* alliance, from which it is at once distinguished by achenial characters alone. From *P. Fowleri* Robinson, with which it has been confused, it differs in the much larger fruit, the thinner more veiny and usually larger leaves, the longer more persistent ocreae, and the more or less ascending habit. From *P. Raii* it is too widely different to require detailed comparison.

Gray Herbarium.

Further Notes on the Orchids of the Asquam Region.— In my note on the orchids of the Asquam Lake, N. H., region, printed in Rhodora for March 1917, no mention was made of finding *Pogonia affinis,* although a specimen suspected of being this species had been collected. More recent investigation (June 29–July 9, 1917) proves the plant in question to be *P. affinis.* This species has not, so far as I know, been previously reported from New Hampshire. As only three plants (two in blossom) were found it did not seem advisable to do much collecting, although I took one specimen for my herbarium. Unfortunately the blossom was lost, but the leaves are still preserved in rather poor condition. I also have two specimens of the capsule.

The members of Camp Algonquin have added two species to their list:

Habenaria dilatata var. *media* (Rydb.) Ames — one plant near a spring on Red Hill.

Habenaria macrophylla Goldie — one plant on Shepard Hill.

Orchis spectabilis L., *Habenaria blephariglottis* (Willd.) Torr., and *Arethusa bulbosa* L. have also been reported from this vicinity.— ALBERT EDGAR LOWNES, Providence, Rhode Island.

INSTALLATION OF THE PECK TESTIMONIAL EXHIBIT.— The late Charles Horton Peck, State Botanist of New York from 1867 to 1915, made his name familiar outside of strictly botanical circles, to a widely scattered and constantly increasing number of amateurs, especially those interested in the fleshy fungi. To their inquiries for information in regard to these perplexing plants he was always ready with an interested and painstaking reply. With the means at his command he endeavored in his annual reports to increase and spread popular knowledge of the poisonous and edible species, and this object he kept before him assiduously for over forty years, so that his name became and will remain associated with these plants in America more widely than that of any other botanist.

As a fitting memorial of this service, there has been installed in the State Museum of New York a series of life-size models of certain conspicuous species. To quote from a recent letter from H. D. House, the present State Botanist of New York:

"The final installation was completed only a few days prior to his [Mr. Peck's] death which occurred on July 10, 1917. The models, 57 in number, and representing 55 species are the work of Mr. Henri Marchand, an artist and sculptor of rare ability. The models are made of wax from casts in the field, and reproduce with perfect fidelity to nature, the form, coloring and habitat of each species."

The many friends and beneficiaries of the late mycologist will not fail to recognize the peculiar fitness of this testimonial.— H. W.

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